

AN 87-144148 [21] WPIDS
 DNC C87-060086
 TI Prepn. of new higher unsatd. di-carboxylic acids, or ester(s) - from
 alkane(s) or mono carboxylic acids or ester(s) by fermentation with
 block mutant of *Candida lipolytica*.
 DC A60 D16 E17
 IN EIERDANZ, H; OTT, K H; SCHINDLER, J; SCHMID, R; VIEHWEG, H; WEISS,
 A; OTT, K
 PA (HENK) HENKEL KGAA
 CYC 12
 PI DE 3540834 A 870521 (8721)* 5 pp
 JP 62118893 A 870530 (8727)
 EP 229252 A 870722 (8729) DE <--
 R: AT BE CH DE FR GB IT LI NL SE
 ES 2003513 A 881101 (8931)
 EP 229252 B1 920701 (9227) DE 7 pp <--
 R: AT BE CH DE FR GB IT LI NL SE
 DE 3685875 G 920806 (9233)
 ADT DE 3540834 A DE 85-3540834 851118; JP 62118893 A JP 86-275069
 861118; EP 229252 A EP 86-115554 861110; EP 229252 B1 EP 86-115554
 861110; DE 3685875 G DE 86-3685875 861110, EP 86-115554 861110
 FDT DE 3685875 G Based on EP 229252
 PRAI DE 85-3540834 851118
 AN 87-144148 [21] WPIDS
 AB DE 3540834 A UPAB: 930922
 Conversion of linear (i) 10-24C alkanes, opt. with 1-3 internal
 conjugated or isolated C=C bonds and/or a terminal prim. OH gp.,
 and/or (ii) analogous monocarboxylic acids, opt. with a sec. OH gp.,
 and/or (iii) esters of the analogous monocarboxylic acids with
 alcohols with functionality, f, of 1-4, and f-22C, under the usual
 fermentation conditions, opt. in presence of auxiliaries, to give
 dicarboxylic acids, or, with (iii) dicarboxylic acid monoesters with
 the same number of C, is carried out in presence of a block mutant
 of a microorganism of the species *Candida lipolytica*, with at least
 partial formation of 1-3 additional C=C bonds.
 Hexadecene-3 dicarboxylic acid, hexadecadiene-3, 13
 dicarboxylic acid, octadecadiene-3,9 dicarboxylic acid,
 octadecatriene-3,9,15 dicarboxylic acid, and 12-hydroxyoctadecadiene
 -3,9 dicarboxylic acid are claimed as new cpds.
 USE/ADVANTAGE - Higher dicarboxylic acids, esp. with functional
 gps. such as C=C bonds or OH gps., which can be prepd. only with
 difficulty, can be obtd. Unsatd. dicarboxylic acids are more
 valuable raw materials than the satd. acids, e.g. by forming derivs.
 more easily. They are modifiers for polymers, esp. for resins, and
 raw materials for further synthesis.
 0/0
 ABEQ DE 3685875 G UPAB: 930922
 Conversion of linear (i) 10-24C alkanes, opt. with 1-3 internal
 conjugated or isolated C=C bonds and/or a terminal prim. OH gp.,
 and/or (ii) analogous monocarboxylic acids, opt. with a sec. OH gp.,
 and/or (iii) esters of the analogous monocarboxylic acids with
 alcohols with functionality, f, of 1-4, and f-22C, under the usual
 fermentation conditions, opt. in presence of auxiliaries, to give
 dicarboxylic acids, or, with (iii) dicarboxylic acid monoesters with
 the same number of C, is carried out in presence of a block mutant
 of a microorganism of the species *Candida lipolytica*, with at least
 partial formation of 1-3 additional C=C bonds.
 Hexadecene-3 dicarboxylic acid, hexadecadiene-3, 13
 dicarboxylic acid, octadecadiene-3,9 dicarboxylic acid,

octadecatriene-3,9,15 dicarboxylic acid, and 12-hydroxyoctadecadiene-3,9 dicarboxylic acid are claimed as new cpds.

USE/ADVANTAGE - Higher dicarboxylic acids, esp. with functional gps. such as C=C bonds or OH gps., which can be prepd. only with difficulty, can be obtd. Unsatd. dicarboxylic acids are more valuable raw materials than the satd. acids, e.g. by forming derivs. more easily. They are modifiers for polymers, esp. for resins, and raw materials for further synthesis.

ABEQ EP 229252 B UPAB: 930922

A process for the conversion of unbranched C10-24 alkanes which, if desired, may contain from 1 to 3 internal conjugated or isolated double bonds and/or a terminal primary OH-group and/or the analogous monocarboxylic acid, if desired containing a secondary OH-group, and/or esters of the analogous monocarboxylic acids with alcohols having a functionality of 1 to 4, the alcohols containing up to 22 carbon atoms in the alcohol radical, under standard fermentation conditions, if desired in the presence of auxiliaries, into dicarboxylic acids or - in the case of carboxylic acid esters - into dicarboxylic acid monoesters containing the same number of carbon atoms, characterised in that the conversion is carried out in the presence of a block mutant of *Candida lipolytica* deposited under the name DSM 3581 and/or mutants thereof capable of forming unsaturated dicarboxylic acids with at least partial formation of 1 to 3 additional CC-double bonds.

0/0